

**Development of High Performance  
Color TV Camera Tube  
—“SATICON”—**

*an Article from*

**RESEARCH AND DEVELOPMENT IN JAPAN  
AWARDED  
THE OKOCHI MEMORIAL PRIZE**

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# Dr. Masatoshi Okochi's Life and Work (1878-1952)



*Dr. Masatoshi Okochi in his later years.*

The Institute of Physical and Chemical Research (Rikagaku-Kenkyusho) was established in Japan in 1917. Viscount Masatoshi Okochi, Doctor of Engineering and Professor of Tokyo Imperial University, was selected in 1921, at the age of forty-three, as the third President of the Institute and held the post for twenty-five years, until 1946. Under his capable administration, designed to provide optimal conditions for the advancement of research, the Institute came to house nearly all of Japan's eminent scientists and engineers, and drawing on his resourcefulness and practical powers to the fullest, it was able to overcome the mounting financial needs.

In becoming the greatest center for research in the Orient, the Institute not only assured continued progress for Japan in the physical, chemical and engineering fields, but also functioned as an important training center for a large number of scientists and engineers.

In a country poor in natural resources as well as weak in various areas of industry, Dr. Okochi championed scientific progress and the creation of new resources under the slogan of "Japan: A 'Have' Nation". Moreover, in order to industrialize the

inventions stemming from research at the Institute, he founded in succession a group of sixty-three enterprises. The courageous effort required to develop these research works into industrial production was characteristic of Dr. Okochi's work. The process of industrial innovation at that time involved many more difficulties than it does today, but eventually a portion of the profits earned by the group of companies he had established came to cover all of the Institute's enormous expenditures.

Though scientific development and industrial innovation suffered an enormous setback because of the War, Dr. Okochi will always remain an outstanding pioneer in the history of science and technology in Japan.

Born into an aristocratic family, he was awarded an Imperial Award from the Imperial Invention Association in 1933 for working out the piston ring manufacturing method, and again in 1938 for the magnesium manufacturing method. A man with a keen mind, he was at the same time a gourmet, a connoisseur of the arts and beauty. He was extremely fond of Japan's ancient art objects, particularly china-ware, and often lectured thereupon to groups of foreigners.

# History of the Okochi Memorial Foundation

In 1954, two years after the death of my respected teacher, Dr. Masatoshi Okochi, the Okochi Memorial Foundation was set up for the purpose of promoting science and technology for industrial production. Dr. Okochi had pointed out in the 1930's that Japan lagged conspicuously behind other countries in this area. In honoring the spirit of Dr. Okochi, the Foundation chose this as the basis for its memorial enterprise.

The year after its establishment, the Foundation embarked on the program of selecting a designated number of the most brilliant individuals, groups and organizations among the many whose research work in the field of science and technology for industrial production had been highly estimated. Since that time eight hundred sixty-five superior researchers have been distinguished by the annual Okochi Memorial Prize. In order that the award should not become merely a passing phenomenon, a "Society of Fellows" has been set up by the Okochi Prize Winners. Each year a social gathering of members of both the Foundation and the Society of Fellows is held, as well as activities such as inspection tours and lecture meetings. The Foundation obtains

from the recipients an accurate outline of as much of their achievements as they wish to disclose. Every year it publishes a volume of these descriptions, which is read and used widely throughout Japan.

For the first thirteen years of the Foundation's existence, Dr. Jiro Tsuji, an eminent scholar in the field of applied physics and photo-elasticity, served as Chairman of the Board of Trustees. In 1968, Dr. Tsuji was succeeded by Dr. Makoto Okoshi, a distinguished scholar in the field of precision engineering. In 1969, Dr. Yoshitoshi Oyama, an eminent scholar in the field of chemical engineering, served as chairman. In 1977, I was appointed to the position. Besides the President and Chairman of the Board, there are twenty-five Trustees, including five Standing Trustees. Also assisting with the work of the Foundation are two auditors and thirty-six influential advisors from political, financial and academic circles.

The number of organizations striving to promote scientific and technological development has increased in Japan in recent years. The Okochi Foundation has been the pioneer in this effort, dating back to the early

postwar years. I would like to express my gratitude to all the officials and committee members of the Foundation who donate their time and enthusiasm to its work.

Foundation has been publishing an English language edition of the recent achievements of those awarded the Okochi Prize. We feel this is appropriate for the present age, when the nations of the world need to cooperate and progress together.



**Yoshio Suge**  
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